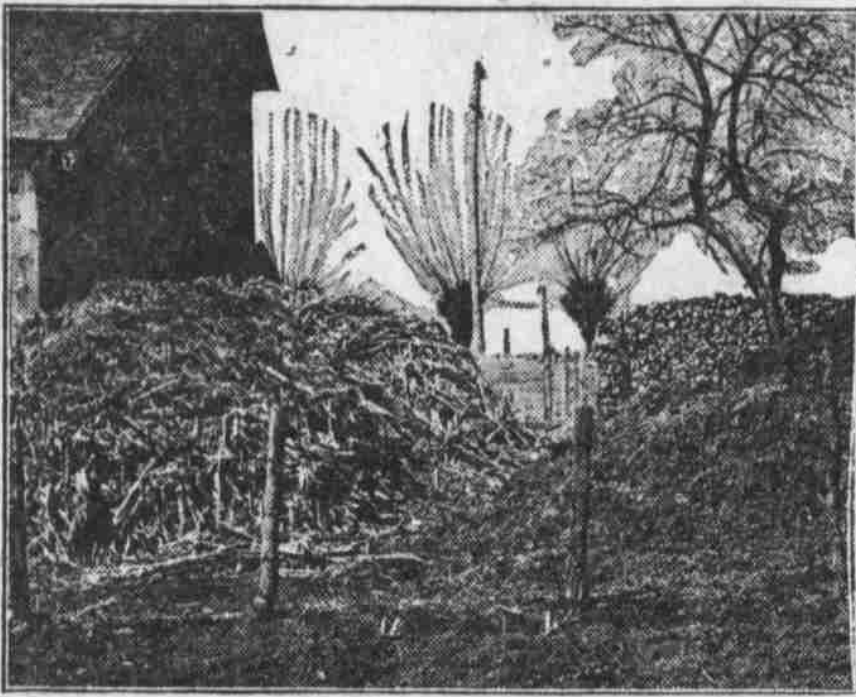


## VALUE OF MANURE FROM FARM ANIMALS



Manure Piled Out in the Lot Like This and Left Exposed to the Weather Will Lose 50 to 75 Per Cent of Its Value in a Short Time.

When properly cared for, the manure from a well-fed horse is worth \$14.75 per year; from a dairy cow, \$18.75; from other cattle, \$11.00; from a sheep, \$2.25; and from a hog, \$2.10. At present only a few farmers are obtaining these manure values because the manure is not made under proper conditions or well cared for. Over half the total fertilizing value of the manure (solid and liquid) is contained in the urine, therefore every reasonable precaution should be taken to prevent its loss.

The loss from leaching during three or four months may range from one-third to one-half the original fertilizing value of the manure. By using impervious floors and by keeping the stock well bedded, leaching may be prevented. Fermentation may destroy one-half the organic matter and one-third or more of the nitrogen if permitted to go on unchecked for four or five months. It cannot be prevented, but may be held in check by keeping the manure moist and thoroughly compacted so that air cannot penetrate the mass.

In order to obtain the greatest return, manure should be applied to thin



Piling Manure Where Rain Will Wash Out Its Fertilizing Elements.

sandy and clay soils rather than to those soils already rich in organic matter. It should be used on soils where the organic matter, as well as nitrogen, phosphoric acid and potash will be beneficial. The practice of treating manure with some kind of phosphate is commendable. For immediate results, acid phosphate is preferable to raw rock phosphate, though either will give good results in the end.

## TEACH COLTS TO EAT GRAIN

By Weaning Time Foal Will Be Accustomed to Feed and Will Be in Better Condition.

The foal should be taught to eat grain very early. By placing the dam's feed box low the foal, at about two months of age, will begin nibbling with the mother and will soon acquire a taste for the grain.

A pen made high enough to keep the mare out and allow the colt to pass under will make it possible to feed the foal grain with very little difficulty. Allow the mare in the enclosure with the foal for a few times, and it will soon learn to go in itself. Keep a liberal supply of grain, preferably oats and bran, and perhaps some cracked corn, in the feed box. To induce the dam to loiter about with the colt, have the pen near a shade tree or the salt box.

By weaning time the foal will have become thoroughly accustomed to eating grain and will wean easily, besides being in better condition as a result of this additional feed.

## TO CLEAN DRY PAINT BRUSH

Made Soft as New by Boiling in Water With Aid of Lye—Avoid Injuring the Handle.

No matter how hard a paint brush has become, it can be made as soft and clean as new by simply boiling in water into which has been put a little lye, says Farm and Home. A little washing powder or soap will do, but it will take longer.

The brush should be placed on end and the boiling water should be no deeper than the length of bristles, as the boiling suds will injure the handle. Turpentine will clean paint brushes, but not after they have become hard.

## ERADICATE FARM PEST

Quack Grass Reproduces From Seed and From Roots.

Two Methods Recommended to Destroy Weed—Growing Cultural Crop and Summer Fallowing—Much Labor Is Required.

Quack grass can be exterminated, F. L. Kennard of Minnesota says that the principal requisite is a firm resolve to rid the farm of the pest.

The weed reproduces both from seed and from underground root stocks. It may be brought to a farm in the form of seed, but the spread is usually by scattering root stocks about with the harrow or other farm implement.

Mr. Kennard recommends two methods of attack: Growing a cultural crop and summer-fallowing.

Where the land is badly infested the farmer will require a great deal of hard labor. If the pest is to be exterminated no green portion must be allowed to show itself and that means eternal vigilance on the part of the farmer. It is not enough to keep the soil clean between the rows. None of the grass must be permitted to grow in the hills. Two years of this treatment is recommended.

When land is partly occupied, the summer-fallow method is probably most economical. One crop is lost, but the additional yield the succeeding



Quack Grass, Showing Entire Plant System Both Above and Below Ground.

ing year will usually offset this when the low cost of cultivating fallow land as compared with corn land is considered. The field should be plowed in the fall and again in the spring to a depth of six or eight inches. A good mulch three inches deep should be prepared with disk and harrow and this mulch kept cultivated with sufficient frequency to prevent any growth above the surface of the ground. By preventing this part from developing the roots are simply starved to death.

## GROWING MUTTON AND WOOL

Sheep Are Splendid Animals to Keep on Any Farm—Their Value Is Being Overlooked.

Western farmers are overlooking a good source of revenue by not keeping a small flock of sheep. The growing of wool and raising of sheep in this country are on the decline. We produce a large surplus of cotton and cereals but are forced to go into foreign markets for 50 per cent of our wool.

Sheep are good animals to have on a farm, and their value should not be overlooked. A flock of 20 to 30 could be easily kept on practically every farm with very little additional expense, since they subsist largely on weeds, shattered grain, etc., that would otherwise be wasted.

With wool selling at 30 cents a pound, a flock of 20 sheep would bring in annually \$60 to \$80 from that source, besides raising 25 to 30 lambs and providing the table with fresh mutton.

## WATCH THE TREES CLOSELY

Study Those That Are Shy Bearers, Susceptible to Disease and Injury by Insects.

Notice the fruit trees carefully. See which tree bears heavily, ripens on time and matures a high grade of fruit. Notice the trees that are shy bearers, the tender trees susceptible to disease and insect injury.

It is highly desirable that the fruit grower become thoroughly familiar with the tendencies of the various trees so he will know how to treat them. Trees are much like animals. A person can always get better results with animals if he understands their peculiarities.

## WINDOWS IN POULTRY HOUSE

Good Plan to Take Them Out During Summer—Chickens Must Have Ample Supply of Air.

It will be a good plan to take all the windows out of the south side of the poultry house and keep them out during the summer. On warm nights, leave all the doors open also so that the hens on the roosts can get all the air that it is possible to give them. Chickens need to be healthy and comfortable to do well. They cannot be healthy without plenty of air.

## GRAIN FOR PIGS ON ALFALFA

Will Return More Profit if Fed Corn, According to Data of Nebraska Experiment Station.

Pigs on alfalfa pasture will return more profit per pig if fed a grain ration equal to three per cent of their weight, according to data of the North Platte (Neb.) experimental station. The pig is a pork-producing machine, and like other machinery is most profitable when run at full capacity. A pig's stomach is so small that it will not digest enough alfalfa alone to make a profitable growth. Pigs cannot produce the best gain when on pasture alone or when on pasture supplemented by only a small amount of grain.

Tests made at the North Platte station show clearly that two and one-half to three pounds of corn daily per 100 pounds of live weight of the pigs produce not only the greatest gain but the greatest profit. The higher the price of corn, the smaller the profit in favor of the heavier ration. However, on a market quotation corn at 70 cents and hogs at 7½ cents, the 3 per cent ration is still the most profitable.

## FEEDING CALVES DRY GRAIN

Corn, Barley, Oats or a Mixture May Be Used to Supply Missing Fat—Feed in Trough.

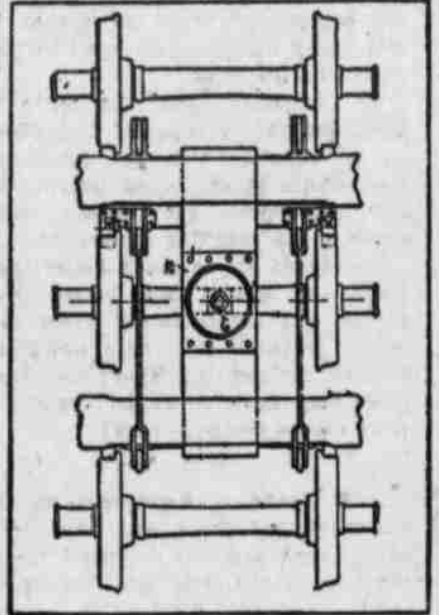
In feeding skim milk calves the grain needed to supply the missing fat, may be corn, barley, oats or a mixture. Occasionally a feeder has skim milk or alfalfa or clover hay on hand, and to these he adds linseed meal, cottonseed meal or gluten feed. These are all in protein, and when any one of them is combined with skim milk and alfalfa—both high in protein—an unbalanced ration results and scours or other digestive troubles follow.

The digestive tract of a calf is small and frequent feeding of small amount during the first month is best. During the first month it is better to grind the grains fed. At the end of this period either oats or corn may be fed unground. Hard grains like kafir and milo give best results when ground. All grain should be fed dry in a trough. Mixing feeds with milk is not recommended, as calves chew their feed better when fed dry.

## SIX-WHEEL TRUCK INVENTED

Invention of Columbus, O., Men Takes Much of Weight From Rear End of Vehicle.

Heavy loads now handled by trucks often throw too much of the load on the rear truck. For the heaviest kind of truck work, a six-wheel truck has been patented by two Columbus (O.) men, who have assigned their patent rights to a corporation of that city. Auxiliary bolsters extend transversely



Six-Wheel Truck.

of the truck, and a main bolster is supported at its end on this auxiliary bolster.—Farming Business.

## MUST SPRAY AT RIGHT TIME

"Time and Tide Wait for No Man"—Little Later Won't Do, as Many Farmers Have Found.

There is an old saying that "time and tide wait for no man," and in no other line of work is this more true than in spraying. The time to spray will come and go, regardless of the man who is not prepared—and when it is gone, it is gone forever, so far as this season is concerned. A little later will not do, as many have found to their cost.

## INCREASE NUMBER OF EGGS

Get Into Confidential Relation With Hens and Treat Them Carefully and Regularly.

The quicker we get into a confidential relation with our hens, treat them carefully and regularly, use slow movements, and always remember that "hens can cut off the egg production at will," the better will be our net showing in money at the end of the year.

## TO GET MAMMOTH ROASTERS

Large Fowls May Be Obtained by Crossing Plymouth Rock Cockerel on Light Brahmas.

Mammoth roasters may be obtained by crossing a large, vigorous white Plymouth Rock cockerel on big, well-developed yearling light Brahmas. Feed them well, caponize the cockerels and you ought to get some 12 to 14-pound birds at nine or ten months old.

## HARM BY SQUASH BUGS

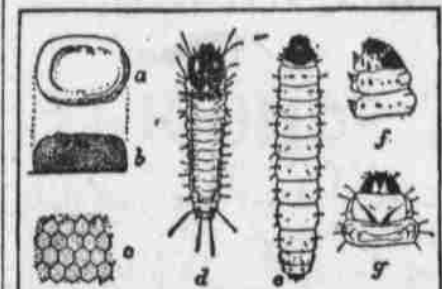
Insect Attacks Many Plants in Vegetable Garden.

No Poison Can Be Applied That Is Effective—Anything With Strong Odor Will Act as Repellent—Keep Close Watch.

The squash bug attacks squashes, pumpkins, cucumbers and such plants, often ruining the crop in a day, if nothing is done to overcome them. No poison can be applied that is effective, as the insects' work is done on the under side of the leaves where the poison will not reach. They also do their work in the early morning while the dew is still on the foliage. Anything with a strong odor will act as a repellent, also material like air-sprayed lime or finely-ground land plaster will have a marked effect in keeping them away.

Careful watch should be kept for the first appearance of the bugs. At the first sign of them, sprinkle the hills with the dry material, on which just enough crude carbolic acid has been sprayed to give the material a strong odor. Quick action must be the watchword. One day of delay means the loss of the crops. Cantaloupe vines seem particularly susceptible to the attacks and they seem to succumb to the ravages of the insects more quickly than squashes and cucumbers.

There is another remedy frequently used, where it is obtainable, and it gives excellent result. It is fish scrap.



Squash-Vine Borer—A, Egg as Seen From Above; B, Same From Side, Showing Sculpture; C, Sculpture of Egg Greatly Enlarged; D, Newly Hatched Larva; E, Half-Grown Larva; F, Head of Same From Side; G, Head of Mature Larva From Above.

inely ground. This may be strewn with a lavish hand as it is cheap and besides repelling the bugs, serves an excellent purpose as a fertilizer. Two dustings with the powder, if no heavy rains occur, will usually do the work. One application of the fish scrap is usually sufficient, if there are no rains to wash it away. What damage the bug does is done quickly, in fact the ravages do not usually last more than two weeks.

## SILO IS NECESSARY TO DAIRY

Grazing Land Then Can Give Way to Exercise Lot—Roughage Is Conserved for Feed.

The intelligent farmer of today has a silo to take the place of his grazing or pasture land, and finds it real economy, says De Laval Monthly. In fact, there are some dairy farmers in the dairy sections of our country who have only an exercise lot in place of pasture land, and nearly all their farm roughage is conserved for feed during the summer and winter. They have their summer and winter silos. These farmers rapidly learn the advantages of winter dairying, which are: A greater milk and butter production, better prices for milk and butterfat, better quality of calves, hence better dairy cattle, and better prices for their crops, by feeding them to their own live stock at that season of the year.

Winter dairying also enables the farmer to employ the best kind of labor because it is possible to give steady employment the year round.

## GIVE SHEEP CHANCE ON FARM

Animals Are Close-Grazing and Thrive on Short Grass and Rough Land—Need Little Care.

Sheep would be a source of profit on many farms where they have not been given attention. They are close-grazing animals and as such will thrive on short grass and rough land where other animals would find it difficult to live. Why not get a few sheep and give them a chance on your farm?

## CHICKENS HELP IN ORCHARD

Fowls Assist Cultivation Where Seed Is Scattered Underneath Branches of the Trees.

Many a fruit grower fails to properly cultivate his orchard for fear he will peel the trunks of his trees and damage the rootlets by doing this work. Just cut the soil under the trees and scatter fine seed and the fowls will do the work just right, also enriching the soil at the same time.

## PRACTICE OF SELLING CREAM

Successful Dairymen Leave Sufficient Amount of Skim Milk on Farm for Calves.

Many successful dairymen are skimming a part of their milk and selling the sweet cream to the factories. This practice leaves the desired amount of skim milk on the farm to be used for calf feeding, and allows a fair price for the product.

## CHICKS RELISH GREEN FOOD

Mangels, Beets, Potatoes, Sprouted Oats, Lettuce and Lawn Clippings Are Good.

Green food is necessary for little chicks, according to the Connecticut Agricultural college. Among the most suitable and convenient crops for this are mangels, table beets, potatoes, sprouted oats, lettuce and lawn clippings. The season and availability will usually decide what to use. The principal thing is to use something of this nature. The feeding may begin on the second or third day. The little chicks must be taught to eat this or they may not develop an appetite for it. If they are fed sparingly of grain for a few days they will soon get to like the green feed. The mangels may be cut in large pieces and placed on nails for the chicks to peck at. Apples, etc., may be fed the same way.

Later in the season clover makes an ideal feed. With a double yarding system rye or oats may be used. One of the easiest ways to get green feed is to sprout grain. A layer of sand about two inches deep kept warm and moist will soon produce a lot of oats or barley sprouts.

## WATERCRESS EASY TO GROW

Barrel Sawed in Half and Filled With Loam, Leaves and Rotted Manure Is Satisfactory.

Watercress is easily grown in a tub for the table use in any kitchen garden. Sow the seed in shallow boxes—just sift it on the top soil. Then place a wet cloth over the soil to moisten the earth. This method prevents the seeds being washed to one corner, which usually occurs when watered with a sprinkler.

When four leaves appear on the plantlets they are ready for their permanent position. For that purpose use a barrel sawed in half. Fill in with garden loam, leaves and well-rotted manure. Work the dirt fine and bring the earth up to within ten inches of the top of the barrel.

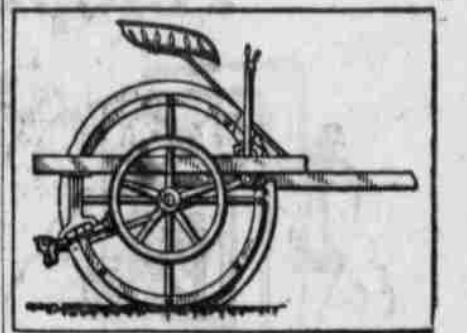
Set the plants six inches apart each way. Water them frequently. The soil must be kept moist. Once a week overflow the barrel with water to carry off any sour deposits. Place a little small charcoal on the soil to keep it sweet and fresh. The cress is cut with a knife. The barrel must be placed in a partly shady place.

## DRY-FARM CORN CULTIVATOR

Soil Maintained in Proper Condition and Foliage of Plant Is Reduced to Minimum.

The Scientific American, in illustrating and describing an improved corn cultivator patented by A. Rasmussen of Edgemont, S. D., says:

"This invention relates to improvements in cultivators, and particularly to a corn cultivator, and has for an object the provision of an improved structure which is designed for use in



Corn Cultivator.

what is known as dry farming, so as to reduce the foliage of the corn to a minimum, whereby the strength may go into the stalk and ear. Means provide for raising or lowering the cutter so as to adapt the same to corn of various ages."

## ORCHARD SITE IS IMPORTANT

Wherever Possible Trees Should Be Planted on Well-Drained Soil, With Southern Slope.

A good site is important when starting an orchard and if possible the trees should be planted on a well-drained southern slope. In some sections where early frosts cause serious losses a northern slope is the best, as the buds will not come out as early in the spring. This reduces the danger of losing the crop, but in general fruit growers seem to profit most on the well-drained southern slope. Hardy varieties that are cared for properly will usually thrive in any well-drained soil of fair fertility.

## FEW HINTS ON SETTING TREE

One Must Be Careful That Roots Are Kept Moist at All Times—Sunshine Is Fatal.

There are a few general hints in setting a tree which should not be forgotten. Trees are living organisms and they cannot live if their roots are exposed for any length of time to the air or sunshine. So let us be very careful that we keep the roots moist at all times.

## KNOWS WHAT HERD IS DOING

Record of Yield From Each Cow Each Morning and Night Is Excellent Business Proposition.

A big sheet of paper fastened to a board in the stable, with every cow's name and a pencil to set down what she is doing night and morning, is a pretty good sign that the master is going to know what his herd is doing.